

EXPRESS MAIL NO.

METHOD AND SYSTEM FOR PROCESSING NETWORK DATA PACKETS

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ABSTRACT OF THE DISCLOSURE

A system for transmitting and receiving TCP/IP data packets using a hardware engine is provided. The system includes an inbound MAC Receive state machine for processing MAC frames received from a network; an inbound IP verifier state machine for verifying IP packet headers; an inbound IP fragment processing state machine for processing and reassembling IP fragments; and an inbound TCP state machine for processing TCP segments received from an IP layer. The system also includes an outbound MAC Transmit state machine that sends MAC frames to a network; an outbound IP state machine that processes IP data to be passed to a MAC layer for transmission; and an outbound TCP state machine that processes TCP data to be passed to the IP layer for transmission.

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